# ROAD SYSTEM

# BRIDGES

#### SR 1, BRIDGE OVER INDIAN RIVER INLET

PROJECT SCOPE/DESCRIPTION: The existing bridge requires constant and expensive maintenance to address serious erosion around the foundation of the piers. A design consultant is being selected for a new improvement along with a design selection committee consisting of DelDOT, Legislative members, and public constituents to begin a selection process in November 2002. This replacement will likely be a suspension bridge design.

PROJECT JUSTIFICATION: The swift current of the Indian River Inlet necessitates the constant need to replace the riprap placed adjacent to the piers for scour protection.

**County:** Sussex

**Municipality:** 

**Funding Program:** Road System - Bridges

**Functional Category:** Preservation

**Representative District:** 38 **Senatorial District:** 20







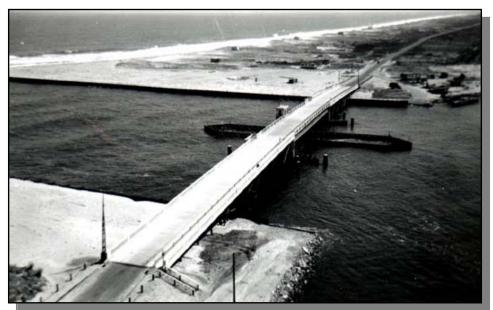






# SR 1, BRIDGE OVER INDIAN RIVER INLET (CONTINUED)

1940 Bridge Over Indian River Inlet



Current Bridge



# SR 1, BRIDGE OVER INDIAN RIVER INLET (CONTINUED)

Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 10/22/02	Expended as of 10/22/02	Committed Unexpended as of 10/22/02	Authorization Available
	\$ 59,079.5						
State							\$ 0.0
_				\$ 0.0		\$ 0.0	\$ 0.0
Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
State		£ 50.070.5	£ 2,000.0	£ 0.0	£ 0.0	£ 0.0	\$ 2,000.0
		\$ 59,079.5					\$ 2,000.
							\$ 0.0
Other			\$ 0.0	φ 0.0	Φ 0.0	\$ 0.0	Ψ 0.
State			\$ 57,000.0				\$ 59,000.0
Federal			\$ 0.0				\$ 0.0
Other			\$ 0.0				\$ 0.0
64-4-			£ 0.0				\$ 59,000.0
							\$ 59,000.1 \$ 0.0
							\$ 0.0
Other			3 0.0				<b>9</b> 0.0
State			\$ 0.0				\$ 59,000.0
Federal			\$ 0.0				\$ 0.0
Other			\$ 0.0				\$ 0.0
							\$ 59,000.
_							\$ 0.0
Otner			\$ 0.0				\$ 0.0
State			\$ 59,079.5	\$ 79.5			\$ 59,000.0
Federal			\$ 0.0	\$ 0.0			\$ 0.0
Other			\$ 0.0	\$ 0.0			\$ 0.0
	£ 50.070.5	¢ 50.070.5	e 50.070.5	e 70.5	9 (2.0	0 157	\$ 59,000.0
	State Federal Other  State Federal Other	Type Estimate  \$ 59,079.5  State Federal Other  State Federal Other	Type Estimate Estimate  \$ 59,079.5  State Federal Other  State Federal Other	State   S 59,079.5   State   S 59,079.5   State   S 59,079.5   S 2,000.0	State	Type	Type

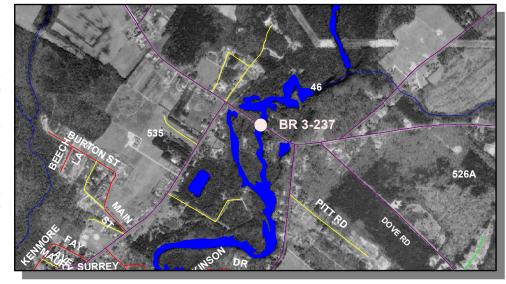
# SR 1, BRIDGE OVER INDIAN RIVER INLET (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 -2009
21-076-05	SR 1, Bridge Over Indian River Inlet	PE	100% ST	\$ 2,079.5	\$ 79.5	\$ 2,000.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
		С	100% ST	57,000.0	0.0	0.0	57,000.0	0.0	0.0	0.0
	Total All Funds			\$ 59,079.5	\$ 79.5	\$ 2,000.0	\$ 57,000.0	\$ 0.0	\$ 0.0	\$ 0.0

#### BR 3-237 ON ELKS ROAD OVER GRAVELLY BRANCH, SEAFORD

**PROJECT SCOPE/DESCRIPTION:** This bridge was built in 1919 and has been designated as a historic bridge. It is finished with concrete parapets in incised rectangular panels and is supported on concrete abutments with U-shaped concrete wing walls. Flared timber wing walls have been added in an effort to arrest erosion of the embankments. The improvements will include partial replacement of the bridge on Elks Road (S 46) by repairing spalls on the existing concrete arch; widening the arch with matching shape and parapets; and installing guardrails at bridge approaches. The existing roadway section will also be widened.

**PROJECT JUSTIFICATION:** This bridge is functionally obsolete and ranks 71<sup>st</sup> on the department's bridge deficiency list (via the bridge management program). Bridge inspection reports indicate that sections of the concrete arch are delaminated with exposed reinforcements. The report also shows that spalls are located on the arch and rails, and several spalls on the railing have exposed rebar. Scour is present on the south side of the arch, extending in from the channel.



**County:** Sussex

Municipality:

**Funding Program:** Road System – Bridges

Functional Category: Preservation

**Representative District:** 35, 39 **Senatorial District:** 19

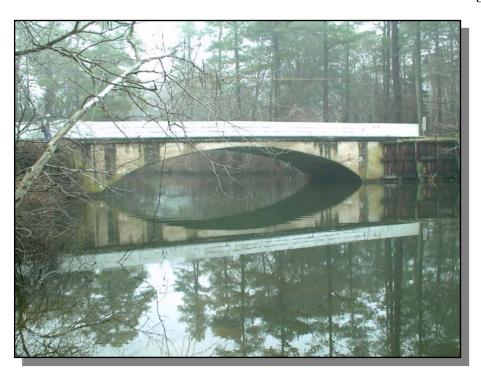


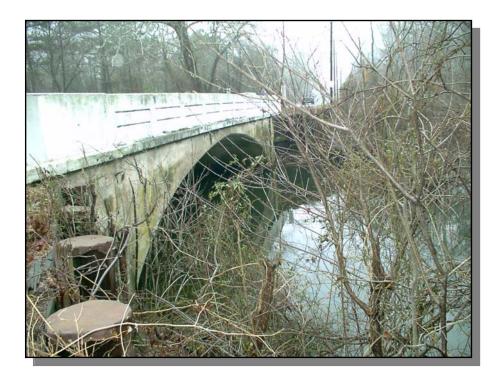




#### BR 3-237 ON ELKS ROAD OVER GRAVELLY BRANCH, SEAFORD (CONTINUED)

**Bridge 3-237** 





# BR 3-237 ON ELKS ROAD OVER GRAVELLY BRANCH, SEAFORD (CONTINUED)

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 10/22/02	Expended as of 10/22/02	Committed Unexpended as of 10/22/02	Authorization Available
BR 3-237 on Elks Road Over Gravelly Branch, Seaford		\$ 1,212.0						
Prior Years	State			\$ 397.6	\$ 99.3	\$ 89.6	\$ 9.8	\$ 298
	Federal			\$ 814.4	\$ 0.0	\$ 0.0	\$ 0.0	\$ 814.4
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2003	State		\$ 1,212.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 298
F 1 2003	Federal		5 1,212.0	\$ 0.0	\$ 0.0	\$ 0.0		\$ 814.4
	Other			\$ 0.0	\$ 0.0	\$ 0.0		\$ 0.0
FY 2004 Request	State			\$ 0.0				\$ 298
	Federal			\$ 0.0				\$ 814.4
	Other			\$ 0.0				\$ 0.0
FY 2005 Projected	State			\$ 0.0				\$ 298
	Federal			\$ 0.0				\$ 814.4
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 298
•	Federal			\$ 0.0				\$ 814.4
	Other			\$ 0.0				\$ 0.0
FY 2007-2009 Projected	State			\$ 0.0				\$ 298
F 1 2007-2007 110jected	Federal			\$ 0.0				\$ 814.4
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 397.6	\$ 99.3			\$ 298
	Federal Other			\$ 814.4 \$ 0.0	\$ 0.0 \$ 0.0			\$ 814.4 \$ 0.0
	Otner			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 1,212.0	\$ 1,212.0	\$ 1,212.0	\$ 99.3	\$ 89.6	\$ 9.8	\$ 1,112.

#### BR 3-237 ON ELKS ROAD OVER GRAVELLY BRANCH, SEAFORD (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 -2009
21-076-01	BR 3-237 on Elks Road Over Gravelly Branch, Seaford	PE	100% ST	\$ 150.0	\$ 150.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
		RW	100% ST	44.0	44.0	0.0	0.0	0.0	0.0	0.0
		С	80% FHWA	1,018.0	1,018.0	0.0	0.0	0.0	0.0	0.0
	Total All Funds			\$ 1,212.0	\$ 1,212.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0

#### BR 3-365N AND BR 3-365S ON NORTH AND SOUTH US 13 OVER RECORDS POND, EAST OF LAUREL

**PROJECT SCOPE/DESCRIPTION:** This project will rehabilitate existing structures including pile jackets, concrete deck overlay, joint replacement, and upgrade existing bridge rail and guardrail. One lane of traffic on each bridge will be maintained during reconstruction.

**PROJECT JUSTIFICATION:** These bridges are functionally obsolete and rank 76<sup>th</sup> and 142<sup>nd</sup>, respectively, on the department's bridge deficiency list (via the bridge management program).

**County:** Sussex

Municipality:

**Funding Program:** Road System – Bridges

**Functional Category:** Preservation

Representative District: 40 Senatorial District: 21







#### BR 3-365N AND BR 3-365S ON NORTH AND SOUTH US 13 OVER RECORDS POND, EAST OF LAUREL (CONTINUED)

**Bridge 3-365S** 





#### BR 3-365N AND BR 3-365S ON NORTH AND SOUTH US 13 OVER RECORDS POND, EAST OF LAUREL (CONTINUED)

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 10/22/02	Expended as of 10/22/02	Committed Unexpended as of 10/22/02	Authorization Available
BR 3-365N and BRA 3-365S on North and South US 13								
Over Records Pond, East of Laurel		\$ 1,274.0						
Prior Years	State			\$ 387.6	\$ 211.6	\$ 6.6	\$ 205.0	\$ 176.0
	Federal			\$ 886.4	\$ 617.0	\$ 26.2	\$ 590.7	\$ 269.4
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2003	State		\$ 1,274.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 176.0
F 1 2005	Federal		9 1,274.0	\$ 0.0	\$ 0.0		\$ 0.0	\$ 269.4
	Other			\$ 0.0	\$ 0.0		\$ 0.0	\$ 0.0
FY 2004 Request	State			\$ 0.0				\$ 176.0
	Federal			\$ 0.0				\$ 269.4
	Other			\$ 0.0				\$ 0.0
FY 2005 Projected	State			\$ 0.0				\$ 176.0
•	Federal			\$ 0.0				\$ 269.4
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 176.0
F1 2000 F10jecteu	Federal			\$ 0.0				\$ 269.4
	Other			\$ 0.0				\$ 0.0
FY 2007-2009 Projected	State			\$ 0.0				\$ 176.0
	Federal			\$ 0.0				\$ 269.4
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 387.6	\$ 211.6			\$ 176.0
	Federal			\$ 886.4	\$ 617.0			\$ 269.4
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 1,274.0	\$ 1,274.0	\$ 1,274.0	\$ 828.6	\$ 32.8	\$ 795.8	\$ 445.4

#### BR 3-365N AND BR 3-365S ON NORTH AND SOUTH US 13 OVER RECORDS POND, EAST OF LAUREL (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 -2009
	BR 3-365N and BR 3-365S on North and South US 13 Over Records Pond,	PE	100% ST	\$ 166.0	\$ 166.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	East of Laurel	С	80% FHWA	1,108.0	1,108.0	0.0	0.0	0.0	0.0	0.0
	Total All Funds			\$ 1,274.0	\$ 1,274.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0

#### BR 3-526 AND BR 3-527 ON US113 OVER BETTS POND, MILLSBORO

**PROJECT SCOPE/DESCRIPTION:** This project consists of replacing Bridge 3-527 with concrete frame structure and sheet pile spillway; replacing Bridge 3-526 with concrete box; placing timber guardrail at bridge approaches; and stabilizing slopes. Construction has been coordinated with pavement reconstruction on US113.

**PROJECT JUSTIFICATION:** These bridges have low structural capacity and narrow width. Both bridges are structurally deficient and rank 59<sup>th</sup> and 8<sup>th</sup>, respectively, on the department's bridge deficiency list (via the bridge management program).

**County:** Sussex

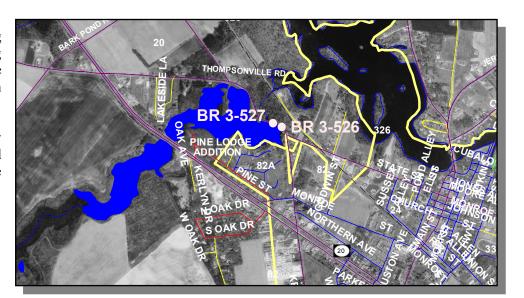
**Municipality:** 

Funding Program: Road System – Bridges

**Functional Category:** Preservation

Representative District: 41 Senatorial District: 20







#### BR 3-526 AND BR 3-527 ON US113 OVER BETTS POND, MILLSBORO (CONTINUED)

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 10/22/02	Expended as of 10/22/02	Committed Unexpended as of 10/22/02	Authorization Available
BR 3-526 and BR 3-527 on US113 Over Betts Pond, Millsboro		\$ 1,200.0						
Prior Years	State			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	£ 0.0
Frior Years	Federal			\$ 0.0	\$ 0.0 \$ 0.0	\$ 0.0 \$ 0.0	\$ 0.0	\$ 0.0 \$ 0.0
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2003	State		\$ 1,200.0	\$ 1,200.0	\$ 173.2	\$ 112.5	\$ 60.7	\$ 1,026.8
11 2003	Federal		5 1,200.0	\$ 1,200.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 1,020.8
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2004 Request	State			\$ 0.0				\$ 1,026.8
	Federal			\$ 0.0				\$ 0.0
	Other			\$ 0.0				\$ 0.0
FY 2005 Projected	State			\$ 0.0				\$ 1,026.8
	Federal			\$ 0.0				\$ 0.0
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 1,026.8
	Federal			\$ 0.0				\$ 0.0
	Other			\$ 0.0				\$ 0.0
FY 2007-2009 Projected	State			\$ 0.0				\$ 1,026.8
	Federal			\$ 0.0				\$ 0.0
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 1,200.0	\$ 173.2			\$ 1,026.8
	Federal			\$ 0.0	\$ 0.0		_	\$ 0.0
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 1,200.0	\$ 1,200.0	\$ 1,200.0	\$ 173.2	\$ 112.5	\$ 60.7	\$ 1,026.8

#### BR 3-526 AND BR 3-527 ON US113 OVER BETTS POND, MILLSBORO (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 -2009
	BR 3-526 and BR 3-527 on US113 Over Betts Pond, Millsboro	С	100% ST	\$ 1,200.0	\$ 0.0	\$ 1,200.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	Total All Funds			\$ 1,200.0	\$ 0.0	\$ 1,200.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0

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#### BR 3-815N ON SR 1 NORTHBOUND OVER WAPLES POND

**PROJECT SCOPE/DESCRIPTION:** This project consists of replacing the concrete slab bridge with a prestressed concrete adjacent box beam bridge; making safety improvements at approaches; and placing rip-rap to prevent scour at the foundation.

**PROJECT JUSTIFICATION:** This bridge is low capacity and ranks 68<sup>th</sup> on the department's bridge deficiency list (via the bridge management program).

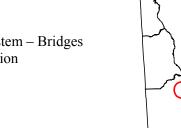
**County:** Sussex

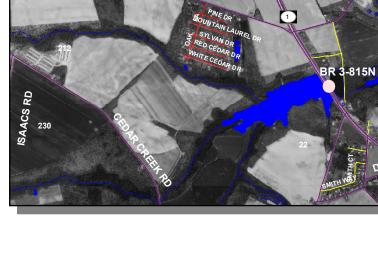
Municipality:

**Funding Program:** Road System – Bridges

**Functional Category:** Preservation

**Representative District:** 36 **Senatorial District:** 18







# BR 3-815N ON SR 1 NORTHBOUND OVER WAPLES POND (CONTINUED)

**Bridge 3-815**N





#### BR 3-815N ON SR 1 NORTHBOUND OVER WAPLES POND (CONTINUED)

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 10/22/02	Expended as of 10/22/02	Committed Unexpended as of 10/22/02	Authorization Available
BR 3-815N on SR 1 Northbound Over Waples Pond		\$ 1,057.2						
Prior Years	State			\$ 236.4	\$ 203.5	\$ 9.2	\$ 194.3	\$ 32.9
	Federal			\$ 820.8	\$ 643.6	\$ 37.0	\$ 606.7	\$ 177.2
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2003	State		\$ 1,057.2	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 32.9
	Federal		4 2,001.12	\$ 0.0			\$ 0.0	\$ 177.2
	Other			\$ 0.0		\$ 0.0		\$ 0.0
FY 2004 Request	State			\$ 0.0				\$ 32.9
	Federal			\$ 0.0				\$ 177.2
	Other			\$ 0.0				\$ 0.0
FY 2005 Projected	State			\$ 0.0				\$ 32.9
9	Federal			\$ 0.0				\$ 177.2
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 32.9
F 1 2000 F Tojecteu	Federal			\$ 0.0				\$ 32.5 \$ 177.2
	Other			\$ 0.0				\$ 1/7.2
FY 2007-2009 Projected	State			\$ 0.0				\$ 32.9
•	Federal			\$ 0.0				\$ 177.2
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 236.4	\$ 203.5			\$ 32.9
Total Frojected	Federal			\$ 236.4 \$ 820.8	\$ 203.5 \$ 643.6			\$ 32.5 \$ 177.2
	Other			\$ 0.0				\$ 1/7.2
Total All Funds		\$ 1,057.2	\$ 1,057.2	\$ 1,057.2	\$ 847.2	\$ 46.2	\$ 801.0	\$ 210.0

### BR 3-815N ON SR 1 NORTHBOUND OVER WAPLES POND (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007 -2009
	BR 3-815N on SR 1 Northbound Over Waples Pond	PE	100% ST	\$ 21.2	\$ 21.2	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
		RW	100% ST	10.0	10.0	0.0	0.0	0.0	0.0	0.0
		С	80% FHWA	1,026.0	1,026.0	0.0	0.0	0.0	0.0	0.0
	Total All Funds			\$ 1,057.2	\$ 1,057.2	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0